



Using hotspots

If you need a fast internet connection when you're out and about, wireless hotspots are a good option. **Chris Finnamore** explains how to use them and how much they cost

Wireless hotspots are wireless networks configured for public access. They exist all over the UK, in public places such as cafés and pubs, as well as many hotels. Many smaller independent establishments have their own wireless networks, which they may let you access for free or for a small fee. Larger chains tend to host a hotspot for one of the three main providers: The Cloud, T-Mobile and BT Openzone.

Unfortunately, universal low-cost wireless access is not yet a reality. It's actually a fairly expensive business, but you can mitigate the cost by considering how long you're going to be online. We'll discuss the differences between the packages available, with a cost breakdown in the table below.

How you connect to the internet at a wireless hotspot depends on what kind it is. Independent hotspots are usually encrypted, so you'll need to ask for the password. By contrast, hotspots run by the large operators are often unsecured, but when you connect you're taken straight to a secure webpage asking for your payment details.

Paying for access at an independent hotspot is usually an informal cash arrangement, but using a large provider is more complicated, as you often have to pay for your access in advance or take out a subscription. Using a large provider has the advantage that you can then use your credit at any of that provider's hotspots.

CHOOSING A PROVIDER

Our table below shows the three main hotspot providers and how much they charge. As with a mobile phone contract, there are two main ways of paying. You can either top up a pre-paid account or take out a subscription. The different providers have different bundles and subscriptions available, so first you'll have to decide how often you're going to need to get online at a hotspot. You should also consider whereabouts you're most likely to need wireless internet access.

We've listed the number of hotspots each provider has in the UK, but these vary by location. Each provider's website has a map and a list of its hotspots, so you can see which locations suit you. Bear in mind that deals exist between providers, so you can use other providers' hotspots for a reduced fee. For example, if you choose BT Openzone's 500 minutes Extra subscription package or above, you can use T-Mobile's UK hotspots for free. Again, check the providers' websites for details.

PREPAY WIRELESS ACCESS

Prepay costs between the providers are similar, but with some significant differences. If you're buying 24 hours' access, you'll pay £10 on all three, while costs for an hour vary between £4.50 and £6. The Cloud is the only provider that lets you pay for three hours' access. You can also pay for access to The Cloud via text message as well as with a debit or credit card, but this carries an extra charge. Text messaging is the only way you can pay for 30 minutes' access, but this costs a hefty £4.

BT Openzone is unusual in that it offers either five days or a month's access without having to take out a subscription. Five days' access with a maximum of 2,000 minutes use costs £27, while £40 will get you 4,000 minutes to use over the course of a month. Again, this is very expensive, so if you plan to use hotspots regularly you should consider a subscription.

SUBSCRIPTION WIRELESS ACCESS

If you use wireless hotspots more than occasionally, a subscription will give you either unlimited access to a provider's service, or a large number of minutes per month, for a flat fee. Again, costs vary: unlimited access with The Cloud costs £7 monthly for a single device, but if you want to get online with your mobile phone as well as your laptop, you'll need to buy the multiple device plan for £10 a month. When you sign up to The Cloud's unlimited account for a single device, you have

INTRODUCTION

Last month's ultra-portable laptop Labs reviewed nine laptops that are ideal to take on the road, but unless you're in the middle of typing up a novel, a laptop's not much use without internet access. There are two options for getting online when you're on the move: 3G and wireless hotspots. In this month's *Mobile Expert* we'll show you how to get online with hotspots, and next month we'll cover 3G.

An increasing number of wireless hotspots are cropping up all over the UK, usually in places such as cafés and pubs. Unfortunately, connecting to a wireless network isn't always as simple as it should be, and there are costs involved. We'll show you how to set up and troubleshoot a wireless connection, as well as take you through the wireless hotspot deals available to help you get online with the minimum of fuss and expense.

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WIRELESS HOTSPOT PROVIDERS

SERVICE	THE CLOUD	T-MOBILE	BT OPENZONE
AVAILABILITY			
Total UK hotspots	7,088	3,785	2,740
PREPAY COSTS			
30 minutes	£4 (SMS)	N/A	N/A
1 hour	£4.50, £6 (SMS)	£5	£6
3 hours	£7, £9 (SMS)	N/A	
24 hours	£10	£10	£10
5 days	N/A	N/A	£27 (2,000 minutes)
1 month	N/A	£40	£40 (4,000 minutes)
Subscription costs	Unlimited single device £7; unlimited multiple devices £10	Unlimited £20; £10 if on a T-Mobile phone contract	500 minutes £5; 500 minutes Extra £10; 2,000 minutes £17; 4,000 minutes £25
Charge over allowance	N/A	N/A	11.75p/minute up to a maximum of £47
Extras	N/A	300 minutes free BT Openzone access with unlimited subscription	Free use of T-Mobile UK hotspots with 500 minutes Extra package and above
Details	www.thecloud.net	www.t-mobile.co.uk/services/mobile-internet/hotspot/	www.btopenzone.com/



to register your device's MAC address with the service. Every network adaptor, whether wired or wireless, has a MAC address. To find the MAC address of your wireless network adaptor, open a command prompt from the Start menu and type `ipconfig /all`. Look for your wireless adaptor and write down the six pairs of letters and numbers next to Physical Address. This is your wireless adaptor's MAC address.

T-Mobile's unlimited plan costs a steep £20 per month, but if you already have a mobile phone contract with them, it's reduced to £10. Instead of unlimited access, BT Openzone's plans give you a bucket of minutes each month, charging you if you go over the limit. While £10 on The Cloud will get you unlimited hotspot use for multiple devices, £10 on BT Openzone only gets you 500 minutes of access.

T-Mobile and BT Openzone's unlimited plans may seem poor value, but the two providers do have tie-ins with each other. If you buy the unlimited T-Mobile subscription, you get 300 minutes of access on BT Openzone hotspots, while if you buy BT Openzone's 500 minutes Extra subscription you can use T-Mobile's hotspots for free. Unless there's a shortage of its hotspots in your area, we think The Cloud's subscription is the best value, so check the website for hotspot locations before you sign up.

Finally, as with many broadband providers, T-Mobile operates a Fair Use policy. Its website says: "Customers who make excessive use of the service may be asked to reduce their use. If usage continues to be excessive, T-Mobile may move these customers to another plan." However, the company describes excessive use as over 30GB a month. Unless you live next to a hotspot and constantly download large files, you won't reach this limit.

CONNECTING TO A HOTSPOT

Hotspot connection uses the same process as connecting to a standard wireless router. Here we'll show you how to do it in both Windows XP and Vista, along with some tips to make sure that it works smoothly.

Many wireless adaptors come with their own software to manage the wireless connection but, with few exceptions, using the third-party utility has no advantages over using the software built into Windows. We'll cover using the Windows software, but if you already use a third-party

Am I connected? Troubleshooting a wireless network

If you've connected to a wireless network but can't connect to the internet, there could be several things wrong. The easiest is to try repairing your connection. This resets the connection and gives your laptop a new IP address. In Windows XP, right-click on the

Wireless Network icon in your System Tray and click Repair. In Vista, right-click on the Wireless Network icon and click Diagnose and Repair. After a few seconds your connection should be reset and you can try connecting to the internet again.

program we'll show you how to disable it and change back to Windows' wireless manager. Windows XP's and Windows Vista's wireless applications are different, so we'll cover both. You'll need to have Windows XP Service Pack 2 installed to follow these steps. If you don't have it, download it from www.microsoft.com/windowsxp/sp2/default.msp.

VIEWING WIRELESS NETWORKS

To view your wireless network settings in Windows XP, double-click on the Wireless Network Connection icon in the System Tray. To see a list of networks available in your area, click the View Wireless Networks button. If you see a "Windows cannot configure this wireless connection" message, you have third-party software installed. Click Change advanced settings, then click the Wireless Networks tab. Click the Use Windows to configure my wireless network settings box, then click OK. Load up the wireless network window again, and you should see the available networks.

In Vista, your network connections are all in one place. To view them, right-click on the network icon in the System Tray and click Connect to a Network. If you want to limit the list to just wireless networks, select Wireless in the Show drop-down box. If you get a message telling you that Windows can't configure the network, you need to enable it. First, disable or remove the current client software as directed in the product manual.

Start a command prompt from the Start menu and type `IP Config`. Look for the name of your wireless adaptor and make a note of it (it should be called something like 'Wireless LAN adapter Wireless Network Connection').

Next, type `set autoconfig enabled=yes interface="<Interface name>"` where <Interface name> is the name of your wireless network adaptor. Restart your PC to confirm the settings.

CONNECTING TO A WIRELESS NETWORK

In both Windows XP and Vista, the wireless network connection window shows the name of the network, the signal strength and whether the network is encrypted or not. To connect to a network, double-click on the network's name. If the network is password-protected, a box will appear asking you for it; this will be provided by the hotspot. In Windows XP, you'll have to enter the password twice.

Click Connect and open your web browser to check that the connection's working. If you enter the wrong password in XP, it may still appear to connect to the wireless network but won't let you access the internet.

The above method works fine if the wireless network is set to make itself visible to the public. However, to increase the security of a network, it's possible to turn off the Service Set Identifier (SSID) broadcast that identifies it, leaving it invisible to a normal scan.

If it is hidden, you'll need to add it manually. To do this, you'll need to know its SSID, whether it uses WEP, WPA or WPA2 encryption, and also the password. Again, the procedures differ under Windows XP and Vista.

In Windows XP, open the wireless network connection window, click Change advanced settings and click the Wireless Networks tab. Under Preferred networks, click the Add button. Type your SSID in the Network name (SSID) box, making sure you capitalise it correctly. Now select the type of encryption from the Network Authentication and Data encryption boxes.

Most networks will use WPA-PSK or WPA2-PSK authentication with TKIP encryption, but you may also come across networks that use WEP encryption. If this is the case, you'll need to select Open or Shared in the Network Authentication box, depending on the network's security settings, and WEP in Data encryption.

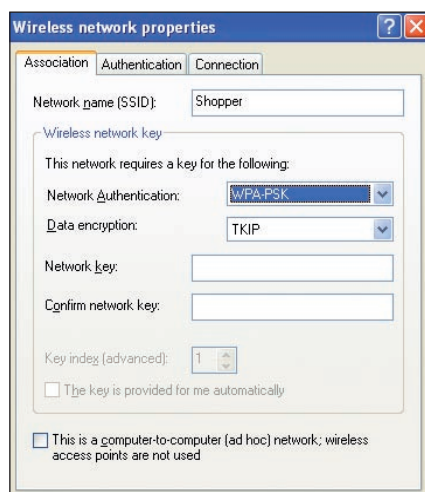
Then type your network key in the two boxes and click OK. If you're using WEP encryption the boxes may be greyed out, so untick 'The key is provided for me automatically'. Now click OK to add the network to your Preferred networks list.

You can add several networks to the list, and change the order in which your computer will connect to them with the Move up and Move down buttons. If you want to change the settings for a certain network, such as the password, select the network and click the Properties button.

Under Windows Vista, right-click on the Network icon in the System Tray, click Connect to a network, then click Set up a connection or network at the bottom of the new window. Select Manually connect to a wireless network and click Next. Now enter the SSID, select the type of security and encryption and enter your passphrase. In Vista, WPA-PSK is called WPA-Personal. Tick the Connect even if the network is not broadcasting box, then click Next and Close. Your laptop should now connect to the network.

If you want to view the networks you've manually added, open the wireless network window, click Open Network and Sharing Center and click Manage wireless networks.

Once you've connected to the wireless network, start your web browser and try to access any website. If there's any further steps to take you'll be redirected to a website where you'll need to log on or buy credit, depending on the type of hotspot account you've got. Once you've completed this step, you'll be able to browse the web as normal for the amount of time you've paid for. **CS**



▲ If a wireless network is hidden you can still connect to it if you know the name, encryption type and password

Next month

MOBILE BROADBAND

With prices for 3G dongles falling, we show you how to get online just about anywhere for a fixed monthly price